

REMARKS

The Office Action dated October 8, 2003 has been received and carefully noted. The above amendments to the specification and claims, and the following remarks, are submitted as a full and complete response thereto.

Upon entry of this response, claims 33-63 will be pending in the present application. Claims 33 and 63 are independent claims. The specification and claim 41 of the present application have been amended. However, these amendments have been made exclusively for the purpose of clarity and have not been made in view of any prior art. No new matter has been added. Claims 33-63 are respectfully submitted for consideration.

Objection to the Specification:

The specification of the present application was objected to because was alleged in the Office Action that the title of the invention was not descriptive. Applicant respectfully submits that the above amendment of the specification directly addresses the Examiner's comments and renders the objection to the specification moot. At least in view of the above amendment to the specification and remarks, reconsideration and withdrawal of the objection to the specification is respectfully requested.

Objection to Claim 41:

Claim 41 was objected to due to alleged informalities. Applicant respectfully submits that the above amendment to claim 41 directly addresses the Examiner's comments and renders the objection to claim 41 for alleged informalities moot. At least

in view of the above amendment to claim 41 and remarks, reconsideration and withdrawal of the objection to claim 41 for alleged informalities is respectfully requested.

Rejection of Claims 33-43, 49, 54-56 and 58-63 Under 35 U.S.C. § 102(b):

Claims 33-43, 49, 54-56, and 58-63 have been rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 5,642,401 to Yahagi (Yahagi '401). This rejection is respectfully traversed.

Claim 33, upon which claims 34-43, 49, 54-56 and 58-62 depend, recites a method of securing communication between a first party and a second party in a telecommunications network. The method includes the step of defining a criteria for selecting one of a plurality of different security methods, the plurality of security methods each including a plurality of messages selected from a set of message types, at least two different security methods having at least one message in common. The method also includes the steps of selecting one of the plurality of different security methods in accordance with defined criteria and performing the security method.

Claim 63 recites a telecommunications network element for securing communication between a first party and a second party. The network element includes means for defining a criteria for selecting one of a plurality of different security methods, the plurality of security methods each including a plurality of messages selected from a set of message types, at least two different security methods having at least one message in common. The network element also includes selection means for selecting one of the plurality of different security methods in accordance with the defined criteria and means

for insuring that the communication between the first and second parties is in accordance with the selected security method.

Applicant points out that the claimed invention advantageously allows a relatively large number of different security methods to be implemented using only a small number of different messages. Applicant also points out that this small number of different messages becomes possible as a common message is shared across the different security methods. Therefore, Applicant further points out that the total number of message types may be reduced by practicing the claimed invention. It is respectfully submitted that the references cited in the Office Action, taken either individually or in combination, fail to disclose or suggest the elements of any of the presently pending claims. Therefore, Applicant respectfully further submits that the references cited in the Office Action fail to provide at least the above-discussed non-obvious advantages of the claimed invention.

Yahagi '401 discloses, at least in claim 1 thereof, a "method of authenticating, at a parent station comprising a base station and a mobile station controller, a service request made by a mobile station in a mobile communication system". Yahagi '401 also discloses an "authentication algorithm calculation means 6 [that] performs an authentication calculation by using an authentication random number sent from a base station 2 and the authentication key 5 as input parameters" (column 3, lines 63-67). In Figure 3 thereof, Yahagi '401 further discloses steps of a single authentication method. In Figure 4 thereof, Yahagi '401 discloses "an initial sequence which is started by a mobile station controller to cause a base station to generate a random number" (column 3,

lines 38-40). In Figure 5 thereof, Yahagi '401 discloses "an initial sequence which is started by a data base to cause the base station to generate a random number" (column 3, lines 41-43). In Figure 6 thereof, Yahagi '401 discloses "pieces of information transferred between the respective constituent elements when there are two authentication targets" (column 3, lines 44-46).

Applicant points out that each of the initial sequences for generating random numbers illustrated in Figures 4 and 5 are for use in conjunction with the single authentication method illustrated in Figure 3. Applicant also points out that the specific method for authenticating each target in Figure 6 is equivalent to the authentication method illustrated in Figure 3. Hence, at least in view of the above, Applicant respectfully submits that Yahagi '401 discloses only a single authentication or security method for securing communication between two parties.

In other words, Yahagi '401 fails to disclose or suggest at least "defining a criteria for selecting a one of a plurality of different security methods", as recited in claim 33 of the present application. Yahagi '401 also fails to disclose or suggest at least the above-discussed "defining" step, wherein "at least two different security methods [have] at least one message in common", as also recited in claim 33. Further, Yahagi '401 fails to disclose or suggest at least "selecting one of the said plurality of different security methods", as recited in claim 33.

In addition to the above, Yahagi '401 fails to disclose or suggest at least the "means for defining a criteria for selecting one of a plurality of different security

methods” recited in claim 63 of the present application. Also, Yahagi ‘401 fails to disclose or suggest at least the above-discussed “means for defining” wherein “at least two different security methods [have] at least one message in common”, as recited in claim 63. Even further, Applicant respectfully submits that Yahagi ‘401 fails to disclose or suggest at least the “selection means for selecting one of said plurality of different security methods” recited in claim 63.

Applicant points out that Figures 3-9 of the present application illustrate various different examples of the “plurality of different security methods” recited in claims 33 and 63 of the present application. Applicant also respectfully points out that, as disclosed in the specification of the present application, the “criteria for selecting one of a plurality of different security methods” recited in claims 33 and 63 may include, for example, the processing capability of each of the two parties, or the time since the last security method was performed, as well as a random selection. Applicant further points out that, as recited in claims 33 and 63, “at least two different security methods [have] at least one message in common”.

As discussed above, Yahagi ‘401 discloses only the single security method illustrated in Figure 3. Applicant also points out that lines 7-24 of column 2 of Yahagi ‘401, at best, merely disclose a single security method that utilizes a plurality of authentication random numbers and corresponding authentication calculation results. However, Applicant respectfully submits that these random numbers and calculation results are no more than messages in the authentication method illustrated in Figure 3 of

Yahagi '401. Hence, at least in view of the above, Applicant again points out that Yahagi '401 fails to disclose or suggest at least the "defining" and "selecting" steps recited in claim 33, or the "means for defining" and "selection means" recited in claim 63 of the present application.

At least in view of the above, Applicant respectfully submits that Yahagi '401 fails to disclose or suggest the subject matter recited in claims 33 and 63 of the present application. Hence, Applicant further submits that claims 33 and 63 are patentable over Yahagi '401 at least for the reasons discussed above.

As mentioned above, claims 34-43, 49, 54-56, and 58-62 depend upon claim 33. Therefore, these claims inherit all of the patentable distinctions thereof. Hence, Applicant respectfully submits that claims 34-43, 49, 54-56, and 58-62 are patentable over Yahagi '401 at least for the reasons discussed above in connection with claim 33.

At least in view of the above remarks, reconsideration and withdrawal of the rejection of claim 33-43, 49, 54-56, and 58-63 under 35 U.S.C. § 102(b) as being anticipated by Yahagi '401 is respectfully requested.

Rejection of Claim 57 Under 35 U.S.C. § 103(a):

Claim 57 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yahagi '401 in view of U.S. Patent No. 5,537,474 to Brown et al. (Brown '474). Although it is acknowledged in the Office Action that Yahagi '401 fails to disclose that the exchange of messages between two parties permits a shared secret to be created, which is used to authenticate the communication between the parties, it is alleged in the

Office Action that Brown '474 discloses such an exchange. It is further alleged that Brown '474 may be combined with Yahagi '401 to produce the subject matter recited in claim 57. This rejection is respectfully traversed.

Brown '474, at least in the title thereof, discloses a "method and apparatus for authentication in a communication system". Brown '474 also discloses "a temporary shared secret data key (SSD) for use in authentication and encryption" (column 4, lines 23-24).

However, Brown '474 fails to address or eliminate any of the above-discussed shortcomings of Yahagi '401 with respect to claim 33. Hence, at least since claim 57 depends upon claim 33 and thereby inherits all of the patentable distinctions thereof, Applicant respectfully submits that claim 57 is patentable over Yahagi '401 and Brown '474, taken either individually or in combination, at least for the reasons discussed above in connection with claim 33.

At least in view of the above remarks, reconsideration and withdrawal of the rejection of claim 57 under 35 U.S.C. § 103(a) over Yahagi '401 in view of Brown '474 is respectfully requested.

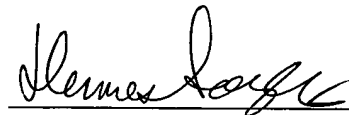
Applicant respectfully submits that all of the comments included in the Office Action have been addressed and that all of the objections and rejections included in the Office Action have been overcome. Hence, Applicant respectfully further submits that, at least in view of the above, claims 33-63 of the present application contain allowable

subject matter. Therefore it is respectfully requested that all claims pending in the present application be allowed, and that this application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicant's undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



Hermes M. Soyez, Ph.D.

Registration No. 45,852

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

HMS:mm

Enclosures: Petition for Extension Time
Associate Power of Attorney